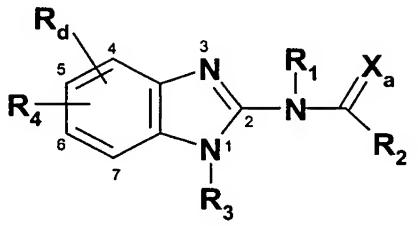
LISTING OF CLAIMS

Claim 1(currently amended):A compound of the formula (I):



(I)

wherein:

$\mathbf{R_1}$ is hydrogen or alkyl;

$\mathbf{R_2}$ is chosen from aryl and heteroaryl, each $\mathbf{R_2}$ is optionally substituted with one or more $\mathbf{R_a}$;

$\mathbf{R_3}$ is $C_{1\text{-}10}$ alkyl chain branched or unbranched optionally substituted with one or more $\mathbf{R_b}$,

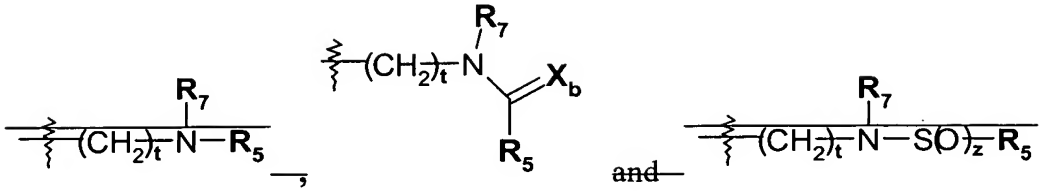
or $\mathbf{R_3}$ is the group:

$-(CH_2)_n-$ **L-R$_6$**, wherein **L** is chosen from a bond, -NH-C(O)-, –O-C(O)-, -C(O)- and $–S(O)_m-$ wherein **m** is 0, 1 or 2, and wherein said group is optionally substituted by one or more $\mathbf{R_b}$;

wherein $\mathbf{R_6}$ is independently chosen from hydrogen, hydroxy, alkyl, alkoxy, alkylthio, aryl$C_{0\text{-}5}$ alkyl, aryloxy$C_{0\text{-}5}$ alkyl, heteroaryl$C_{0\text{-}5}$ alkyl, cycloalkyl$C_{0\text{-}5}$ alkyl, heterocyclyl$C_{0\text{-}5}$ alkyl and amino said amino is optionally mono-or di-substituted by acyl, alkyl, alkoxycarbonyl, cycloalkyl$C_{0\text{-}5}$ alkyl, aryl$C_{0\text{-}5}$ alkyl, heteroaryl$C_{0\text{-}5}$ alkyl or heterocyclyl$C_{0\text{-}5}$ alkyl;

n is 1 - 10;

$\mathbf{R_4}$ is ~~a group chosen from~~:



wherein R_4 is covalently attached at the indicated **5-** or **6-** position of the formula (I), **t** is ~~and z are each independently chosen from~~ 0 ~~,1 or 2~~ ;

R_5 is chosen from arylC_{0-5} alkyl, alkyl, heteroarylC_{0-5} alkyl, cycloalkylC_{0-5} alkyl and heterocyclylC_{0-5} alkyl, each R_5 is optionally substituted with one or more R_c;

R_7 is hydrogen, alkenyl or alkyl;

or R_5 and R_7 together with the nitrogen atom to which they are attached form:
a 4-7-membered monocyclic ring or
an 8-14-membered bicyclic ring,
wherein each monocyclic or bicyclic ring optionally contains an additional 1 to 3 heteroatoms chosen from N, O and S and each ring is aromatic or nonaromatic, and wherein each monocyclic or bicyclic ring is optionally substituted by one or more R_c;

each R_a, R_b or R_c are independently chosen from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, arylalkyl, aryloxy, alkoxy, alkylthio, acyl, alkoxycarbonyl, acyloxy, acylamino, sulphonylamino, aminosulfonyl, alkylsulfonyl, carboxy, carboxamide, oxo, hydroxy, halogen, trifluoromethyl, nitro, nitrile and amino optionally mono-or-di-substituted by alkyl, acyl or alkoxycarbonyl, wherein any of the above R_a, R_b or R_c are optionally halogenated where possible;

R_d, covalently attached at the indicated **4-**, **5-**, **6-** or **7-**position of the formula (I), is chosen from hydrogen, alkyl, alkoxy and halogen and

X_a and X_b are oxygen or sulfur;
or the pharmaceutically acceptable salts, esters, acids, isomers or tautomers thereof.

Claim 2 (currently amended): The compound according to claim 1 wherein:

$\mathbf{R_1}$ is hydrogen;

$\mathbf{R_2}$ is chosen from phenyl, naphthyl, and heteroaryl chosen from thienyl, furanyl, isoxazolyl, oxazolyl, thiazolyl, thiadiazolyl, tetrazolyl, pyrazolyl, pyrrolyl, imidazolyl, pyridinyl, pyrimidinyl, pyrazinyl, pyridazinyl, pyranyl, quinoxalinyl, indolyl, benzimidazolyl, benzoxazolyl, benzothiazolyl, benzothienyl, quinolinyl, quinazolinyl and indazolyl, each $\mathbf{R_2}$ is optionally substituted with one or more $\mathbf{R_a}$;

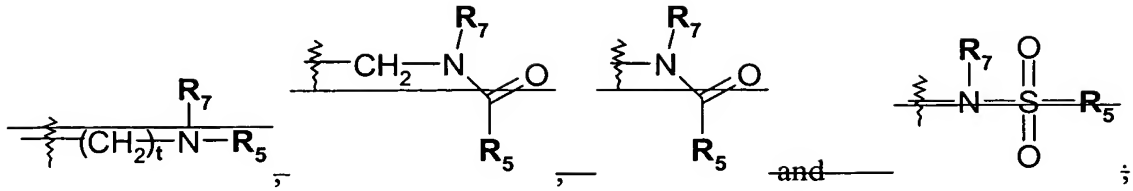
$\mathbf{R_3}$ is $C_{1\text{-}10}$ alkyl chain branched or unbranched optionally substituted with one or more $\mathbf{R_b}$,

or $\mathbf{R_3}$ is:

$-(CH_2)_n-$ **L**-$\mathbf{R_6}$, wherein **L** is chosen from a bond, –O-C(O)-, -C(O)- and –$S(O)_m$- wherein **m** is 0, 1 or 2, and wherein said group is optionally substituted by one or more $\mathbf{R_b}$;

wherein $\mathbf{R_6}$ is independently chosen from hydrogen, hydroxy, $C_{1\text{-}5}$ alkyl, $C_{1\text{-}5}$ alkoxy, $C_{1\text{-}5}$ alkylthio, phenyl, naphthyl, benzyl, phenethyl, heteroaryl$C_{0\text{-}5}$ alkyl, $C_{3\text{-}7}$ cycloalkyl$C_{0\text{-}5}$ alkyl, heterocyclyl$C_{0\text{-}5}$ alkyl and amino said amino is optionally mono-or di-substituted by $C_{1\text{-}5}$ acyl, $C_{1\text{-}5}$ alkyl, $C_{1\text{-}5}$ alkoxycarbonyl, aryl$C_{0\text{-}5}$ alkyl, heteroaryl$C_{0\text{-}5}$ alkyl or heterocyclyl$C_{0\text{-}5}$ alkyl; and wherein each recited heteroaryl in this paragraph is chosen from thienyl, furanyl, isoxazolyl, oxazolyl, thiazolyl, thiadiazolyl, tetrazolyl, pyrazolyl, pyrrolyl, imidazolyl, pyridinyl, pyrimidinyl, pyrazinyl, pyridazinyl and pyranyl and wherein each recited heterocyclyl in this paragraph is chosen from pyrrolidinyl, morpholinyl, thiomorpholinyl, dioxalanyl, piperidinyl and piperazinyl;

~~$\mathbf{R_4}$ is a group chosen from:~~



$\mathbf{R_5}$ is chosen from phenyl, naphthyl, benzyl, phenethyl, $C_{1\text{-}5}$ alkyl~~,~~ and heteroaryl$C_{0\text{-}5}$ alkyl wherein the heteroaryl is chosen from thienyl, furanyl, isoxazolyl, oxazolyl, thiazolyl, thiadiazolyl, tetrazolyl, pyrazolyl, pyrrolyl, imidazolyl, pyridinyl, pyrimidinyl, pyrazinyl, pyridazinyl and pyranyl, $C_{3\text{-}7}$ cycloalkyl$C_{0\text{-}5}$ alkyl and heterocyclyl$C_{0\text{-}5}$ alkyl, wherein the heterocyclyl is chosen from aziridinyl, pyrrolidinyl, morpholinyl, thiomorpholinyl, tetrahydrofuranyl, dioxalanyl, piperidinyl and piperazinyl, each $\mathbf{R_5}$ is optionally substituted with one or more $\mathbf{R_c}$;

each $\mathbf{R_a}$, $\mathbf{R_b}$ or $\mathbf{R_c}$ are independently chosen from hydrogen, $C_{1\text{-}5}$ alkyl, $C_{2\text{-}5}$ alkenyl, $C_{2\text{-}5}$ alkynyl, $C_{3\text{-}8}$ cycloalkyl, phenyl, benzyl, phenoxy, $C_{1\text{-}5}$ alkoxy, $C_{1\text{-}5}$ alkylthio, $C_{1\text{-}5}$ acyl, $C_{1\text{-}5}$ alkoxycarbonyl, $C_{1\text{-}5}$ acyloxy, $C_{1\text{-}5}$ acylamino, $C_{1\text{-}5}$ sulphonylamino, aminosulfonyl, $C_{1\text{-}5}$ alkylsulfonyl, carboxy, carboxamide, oxo, hydroxy, halogen, trifluoromethyl, nitro, nitrile and amino optionally mono-or-di-substituted by $C_{1\text{-}5}$ alkyl, $C_{1\text{-}5}$ acyl or $C_{1\text{-}5}$ alkoxycarbonyl, wherein any of the above $\mathbf{R_a}$, $\mathbf{R_b}$ or $\mathbf{R_c}$ are optionally halogenated where possible;

$\mathbf{R_d}$ is chosen from hydrogen, $C_{1\text{-}3}$ alkyl, $C_{1\text{-}3}$ alkoxy and halogen;

$\mathbf{R_7}$ is hydrogen, $C_{3\text{-}10}$ alkenyl or $C_{1\text{-}5}$ alkyl;

and

$\mathbf{X_a}$ is oxygen.

Claim 3 (currently amended): The compound according to claim 2 wherein:

R_2 is chosen from phenyl, naphthyl and heteroaryl chosen from thienyl, furanyl, isoxazolyl, oxazolyl, imidazolyl, thiadiazolyl, pyrazolyl, pyridinyl, quinoxalinyl and benzothienyl, each R_2 is optionally substituted with one or more R_a;

R_6 is independently chosen from hydroxy, C_{1-5} alkyl, C_{1-5} alkoxy, phenyl, benzyl, phenethyl, heteroarylC_{0-5} alkyl, heterocyclylC_{0-5} alkyl, C_{3-7} cycloalkyl and amino said amino is optionally mono-or di-substituted by C_{1-5} acyl, C_{1-5} alkyl, C_{1-5} alkoxycarbonyl, arylC_{0-5} alkyl or heteroarylC_{0-5} alkyl;

and wherein each recited heteroaryl in this paragraph is chosen from thienyl, furanyl, isoxazolyl, oxazolyl, thiazolyl, thiadiazolyl, tetrazolyl, pyrazolyl, pyrrolyl and imidazolyl, each optionally substituted by R_b;

n is 1-6;

R_5 is chosen from phenyl, naphthyl, benzyl, phenethyl, C_{1-5} alkyl, and heteroarylC_{0-5} alkyl wherein the heteroaryl in this paragraph is chosen from thienyl, furanyl, imidazolyl and pyridinyl, C_{3-7} cycloalkylC_{0-5} alkyl and heterocyclylC_{0-5} alkyl, wherein the heterocyclyl is chosen from aziridinyl, pyrrolidinyl, tetrahydrofuranyl, tetrahydropyridinyl, morpholinyl, thiomorpholinyl, piperidinyl and piperazinyl, each R_5 is optionally substituted with one or more R_c;

R_7 is hydrogen, propenyl or C_{1-3} alkyl and

R_d is chosen from hydrogen and C_{1-3} alkyl.

Claim 4 (currently amended): The compound according to claim 3 wherein:

R_2 is chosen from phenyl and heteroaryl chosen from thienyl, furanyl, isoxazolyl, thiadiazolyl, pyrazolyl and pyridinyl, each R_2 is optionally substituted with one or more R_a;

$\mathbf{R_3}$ is:

$-(CH_2)_n-C(O)-\mathbf{R_6}$ or

$-(CH_2)_n-\mathbf{R_6}$;

wherein $\mathbf{R_6}$ is independently chosen from hydroxy, C_{1-5} alkyl, C_{1-5} alkoxy, phenyl, morpholinylC_{0-5} alkyl, piperazinylC_{0-5} alkyl, imidazolylC_{0-5} alkyl, pyrrolidinylC_{0-5} alkyl, pyrrolidinonylC_{0-5} alkyl, thienylC_{0-5} alkyl, C_{3-7} cycloalkyl and amino said amino is optionally mono-or di-substituted by C_{1-5} alkyl or C_{1-5} alkoxycarbonyl;

$\mathbf{R_5}$ is chosen from phenyl, furanyl, benzyl, phenethyl, C_{1-3} alkyl and C_{3-7} cycloalkylC_{0-5} alkyl, each optionally substituted with one or more $\mathbf{R_c}$;

each $\mathbf{R_a}$, $\mathbf{R_b}$ or $\mathbf{R_c}$ are independently chosen from C_{1-5} alkyl, C_{3-8} cycloalkyl, phenyl, C_{1-5} alkoxy, amino optionally mono-or-di-substituted by C_{1-5} alkyl, C_{1-5} alkoxycarbonyl, carboxamide, hydroxy, halogen, trifluoromethyl, nitro and nitrile, wherein any of the above $\mathbf{R_a}$, $\mathbf{R_b}$ or $\mathbf{R_c}$ are optionally halogenated where possible;

$\mathbf{R_7}$ is C_{1-3} alkyl;

and

$\mathbf{R_d}$ is chosen from hydrogen and methyl.

Claim 5 (currently amended): The compound according to claim 4 wherein:

$\mathbf{R_2}$ is chosen from phenyl, thienyl, furanyl, isoxazolyl and pyridinyl, each optionally substituted with one or more $\mathbf{R_a}$;

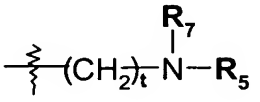
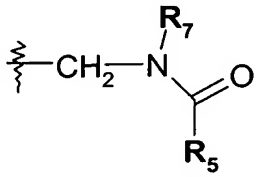
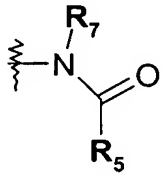
$\mathbf{R_5}$ is chosen from methyl, CF_3, cyclopentyl, phenyl and cyclohexyl, each optionally substituted with one or more $\mathbf{R_c}$;

$\mathbf{R_d}$ is hydrogen and

n is 2-5.

Claim 6 (currently amended): The compound according to claim 5 wherein:

$\mathbf{R_2}$ is chosen from phenyl, thien-2-yl, isoxazol-5-yl and pyridin-3-yl, each optionally substituted with one or more $\mathbf{R_a}$;

$\mathbf{R_4}$ is chosen from:  ,  and  ;

$\mathbf{R_6}$ is independently chosen from hydroxy, methyl, ethyl, C_{1-3} alkoxy, phenyl, morpholinyl, piperazinyl, imidazolyl, pyrrolidinyl, pyrrolidinonyl, thienylC_{0-5} alkyl, C_{3-7} cycloalkyl and amino said amino is optionally mono-or di-substituted by C_{1-5} alkyl or C_{1-5} alkoxycarbonyl;

and

each $\mathbf{R_a}$, $\mathbf{R_b}$ or $\mathbf{R_c}$ are independently chosen from C_{1-3} alkoxy, amino optionally mono-or-di-substituted by C_{1-3} alkyl, carboxamide, hydroxy, fluoro, chloro, bromo, trifluoromethyl, nitro and nitrile.

Claim 7 (currently amended): The compound according to one of claims 2-6 wherein:

$\mathbf{R_4}$ is covalently attached at the indicated **5-** position of the formula (I).

Claim 8 (currently amended): The compound according to one of claims 2-6 wherein:

$\mathbf{R_4}$ is covalently attached at the indicated **6-** position of the formula (I).

Claim 9 (original): A pharmaceutical composition comprising a pharmaceutically effective amount of a compound according to claim 1 and one or more pharmaceutically acceptable carriers and/or adjuvants.

Claim 10 (withdrawn): A method of treating an immunological disorder, said method comprising administering to a patient in need thereof a therapeutically effect amount of a compound according to claim 1.

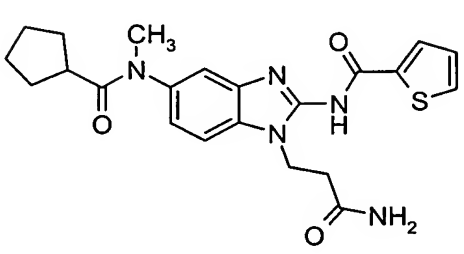
Claim 11 (withdrawn): A method of treating an inflammatory disorder, said method comprising administering to a patient in need thereof a therapeutically effect amount of a compound according to claim 1.

Claim 12 (withdrawn): A method of treating an allergic disorder said method comprising administering to a patient in need thereof a therapeutically effect amount of a compound according to claim 1.

Claim 13 (withdrawn): A method of treating a disease chosen from chronic inflammation, cancer, contact dermatitis, psoriasis, rheumatoid arthritis, multiple sclerosis, type 1 diabetes, inflammatory bowel disease, Guillain-Barre syndrome, Crohn's disease, ulcerative colitis, graft versus host disease, lupus erythematosus, asthma, chronic obstructive pulmonary disease (COPD), adult respiratory distress syndrome (ARDS), bronchitis, conjunctivitis, dermatitis and allergic rhinitis said method comprising administering to a patient in need thereof a therapeutically effect amount of a compound according to claim 1.

Claim 14 (withdrawn): A method administering a vaccine to an individual in need thereof comprising co-administration of a vaccine and a pharmaceutically effective amount of a compound according to claim 1.

Claim 15 (new): A compound chosen from:



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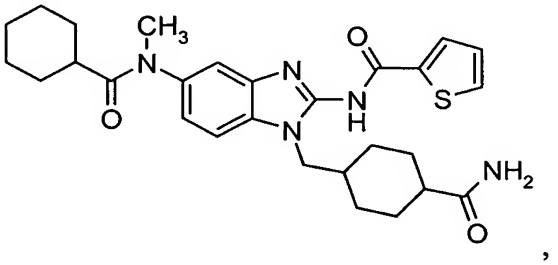

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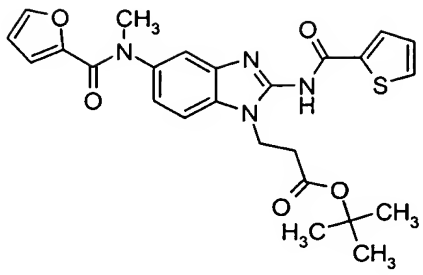

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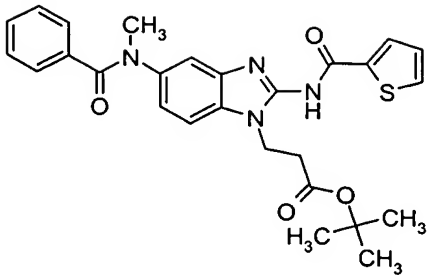

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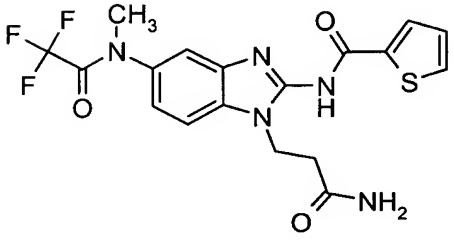

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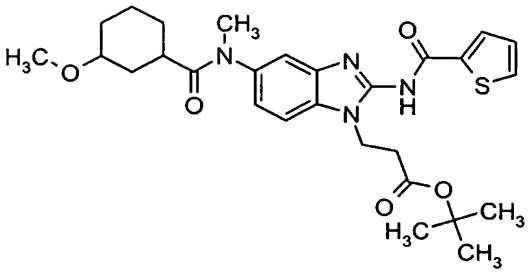

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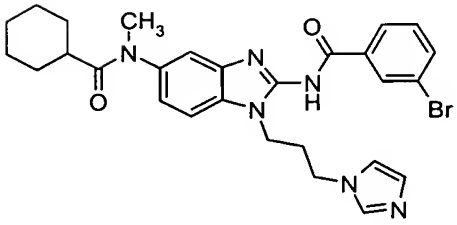

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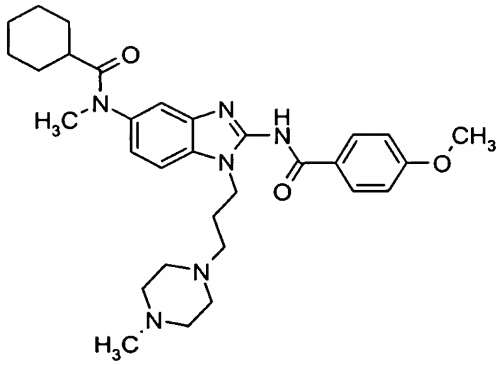

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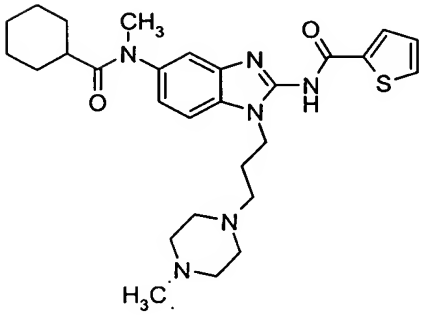

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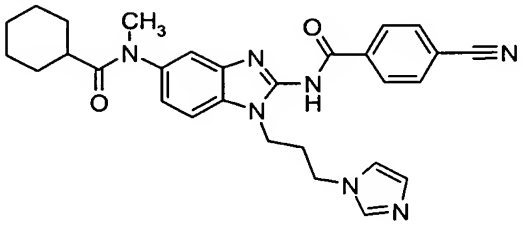

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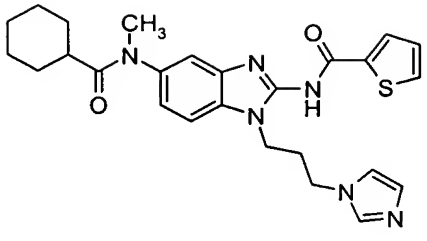
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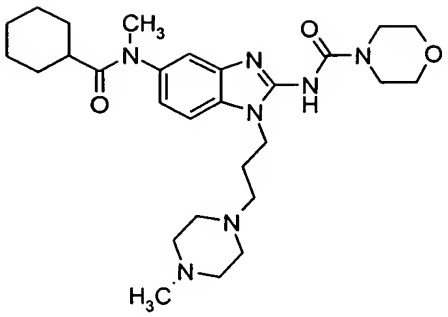
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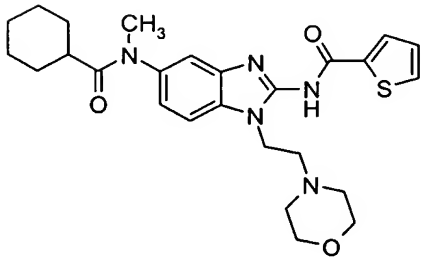
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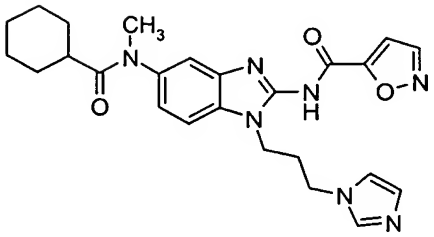
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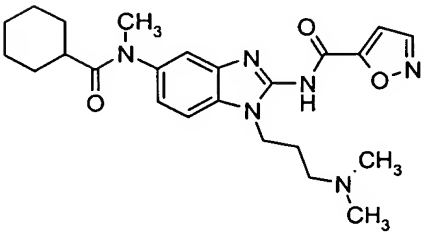
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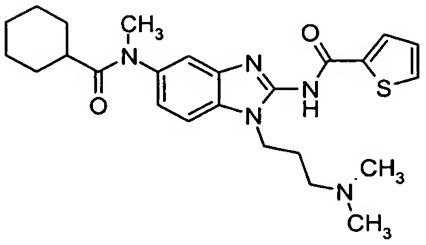
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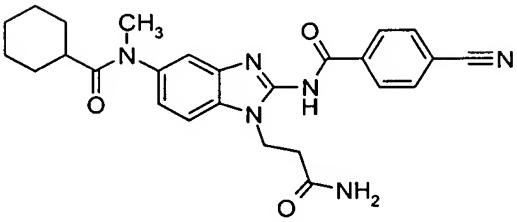
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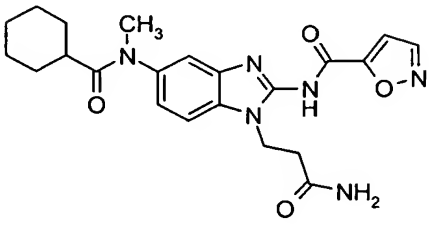
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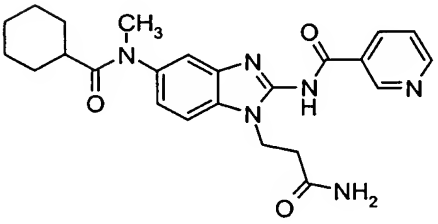
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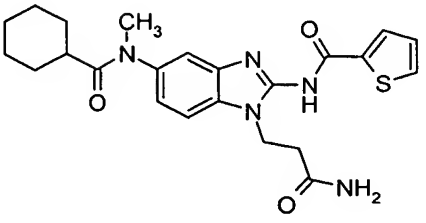
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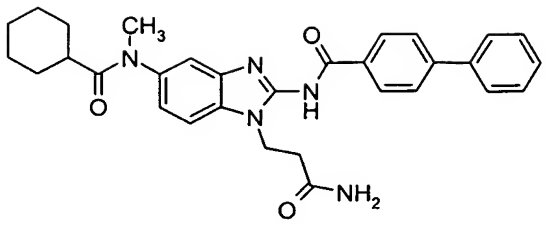
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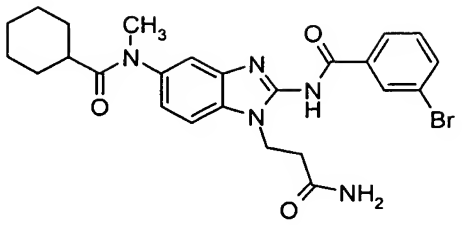
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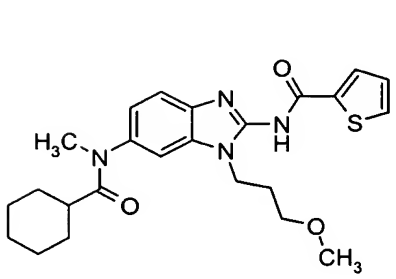
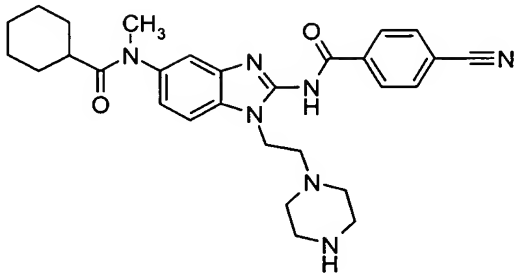
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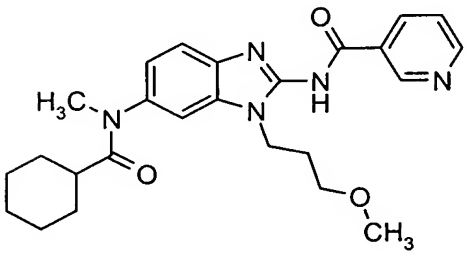
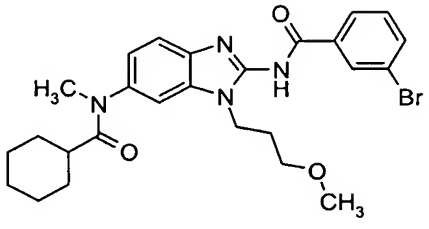
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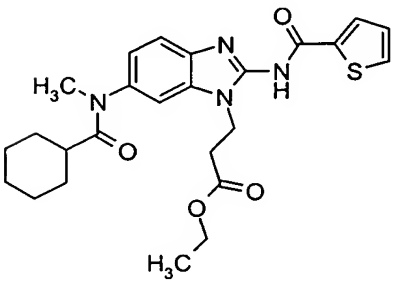
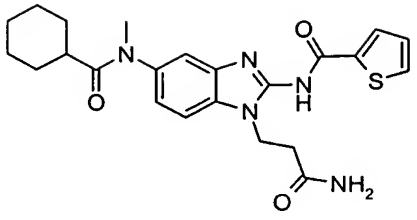


or the pharmaceutically acceptable salts thereof.

Claim 16 (new): A compound chosen from: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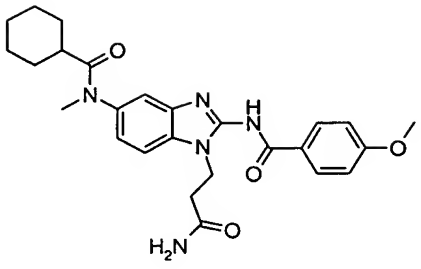
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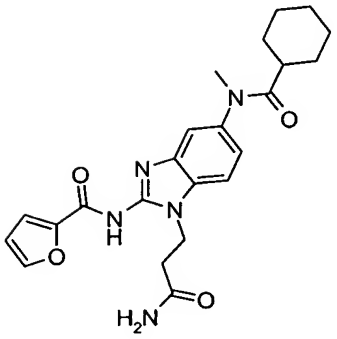
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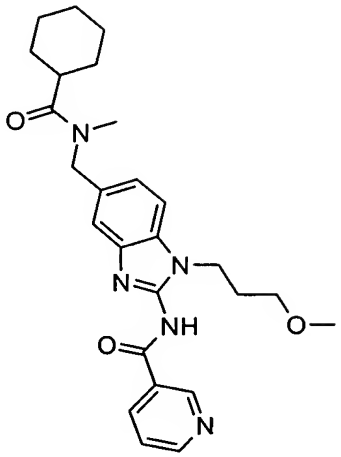
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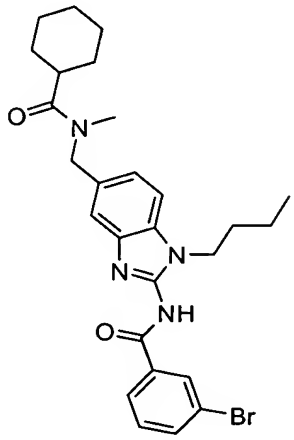
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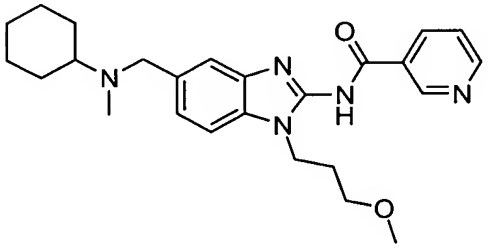
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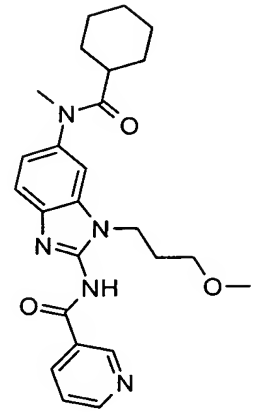
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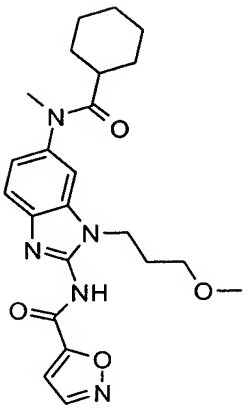
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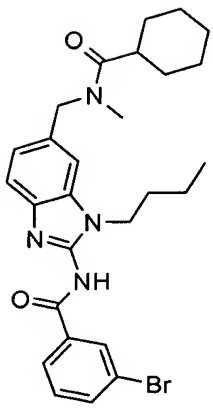
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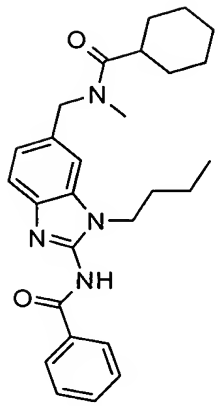
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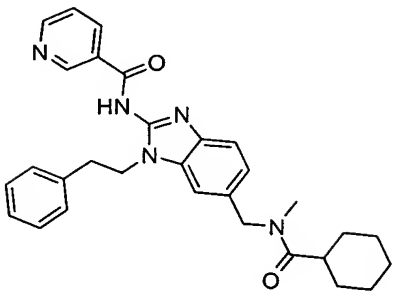
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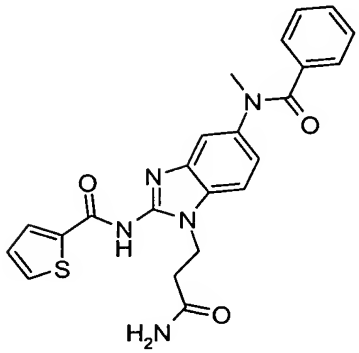
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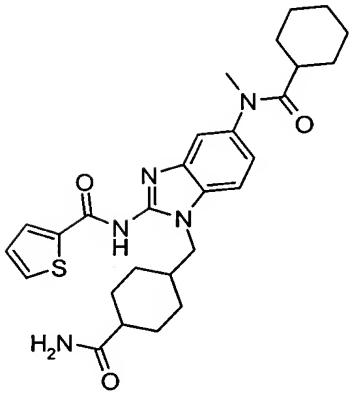
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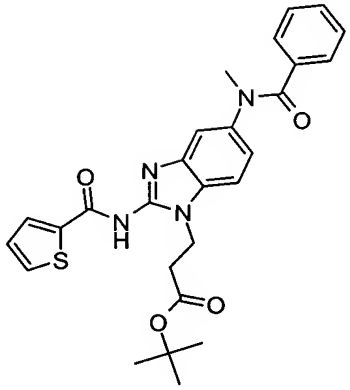
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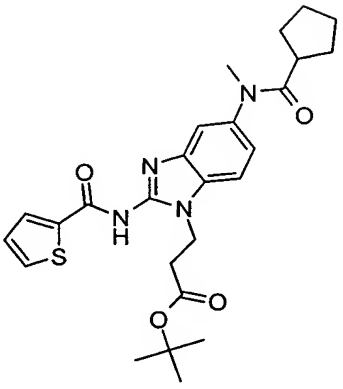
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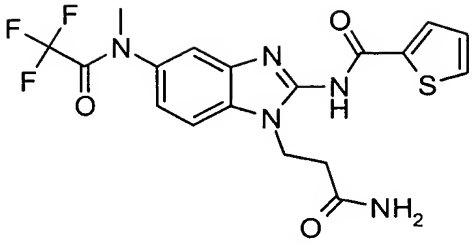
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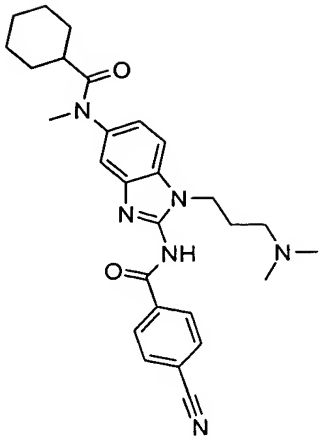
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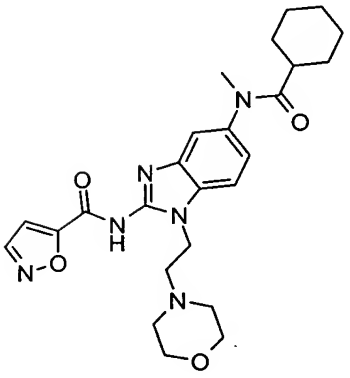
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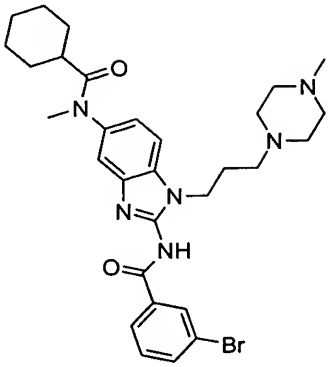
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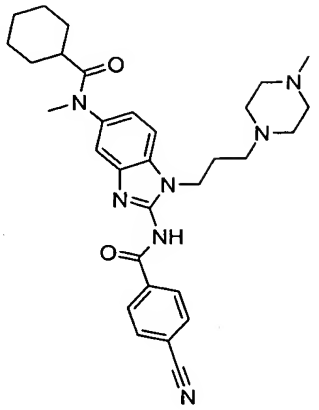
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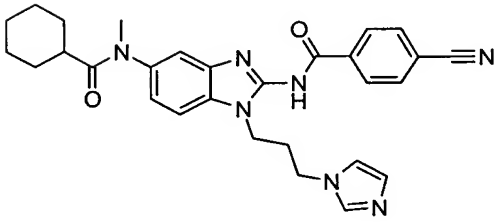
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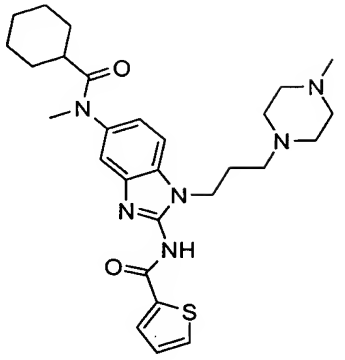
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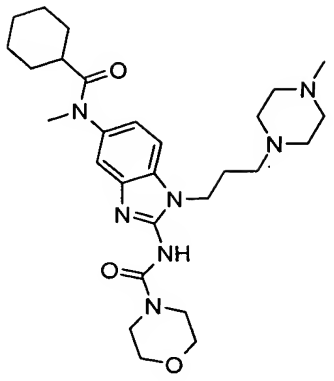
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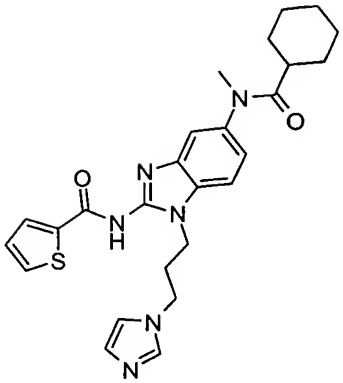
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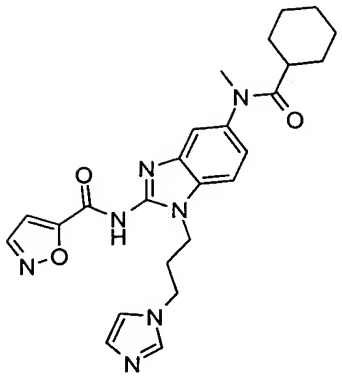
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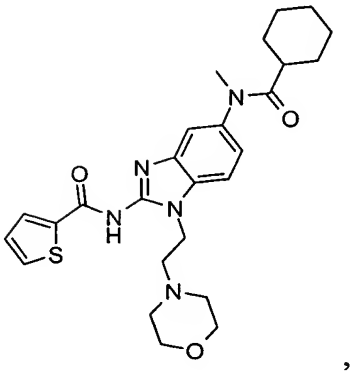
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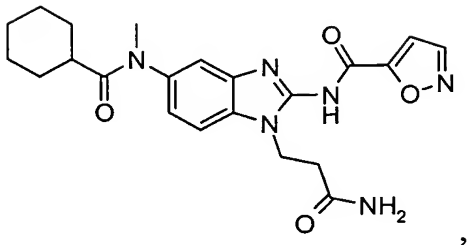
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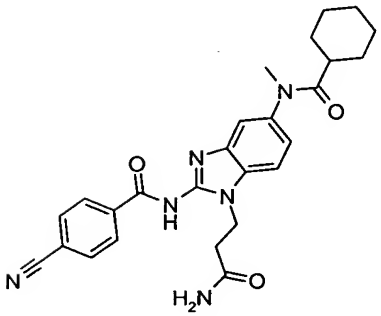
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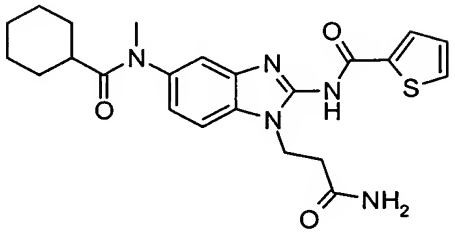
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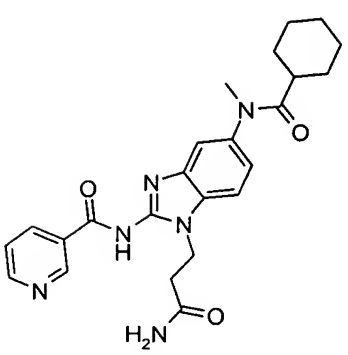
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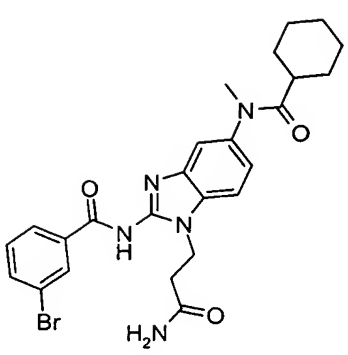
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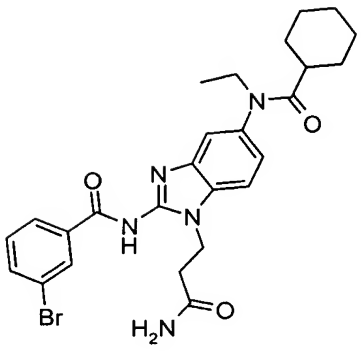
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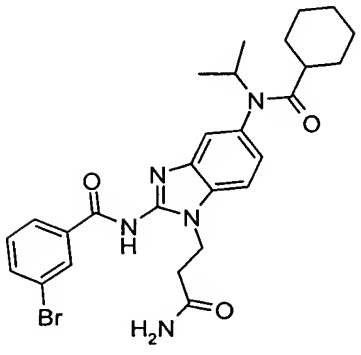
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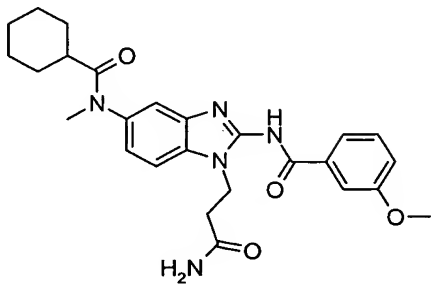

or the pharmaceutically acceptable salts thereof.